THE FARMING WORLD.

POULTRY IN ORCHARDS.

Fowls Do Good Service in Two Very Distinct Ways.

nate in the soil.

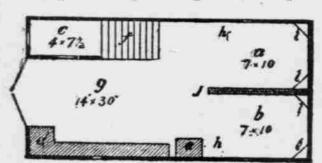
has appeared to prevent all serious attacks of this insect.

In the mature state this insect is a fly, which deposits its eggs in the pulp of the apple beneath the skin. The young maggets grow within the fruit, which they render worthless, and when mature emerge from the apple and go into the ground, lying in the pupa state beneath the surface soil among the grass roots. Samples of the earth, six inches square, were taken, and the number of maggots under the trees varied, according to the size, from 1,600 to more than 12,000 under each tree; the pupae somewhat resembling kernels of wheat. Now comes the point which was particularly interesting to me. The experiment was tried as to whether poultry, if confined to a small range and encouraged to scratch, would destroy these pupae. A large movable wire fence was placed about a tree, whose fruit had been destroyed by insects. One side of the fence was raised and 50 hens were called into the inclosure. The fence was let down and they were confined to the space around the tree. As soon as they had eaten the corn they naturally began to scratch for pupae, and in the course of three or four days it was found that the latter had disappeared. As these insects remain in the pupas state from the fall of the apple to the following spring, when they appear, it may be expected that next year the number of flies breeding from the apple maggot will be greatly diminished in the localities where this plan is fol-

From personal experience, extending over many years, I can speak positively of the advantages of allowing fowls and chickens a free range in apple orchards. They not only manure the soil and destroy all insects harboring in it, but they find, for some weeks, a considerable proportion of their own food-the windfalls, which they devour greedily, with any grubs they may contain.

FARM TOOL HOUSE. Every Vegetable and Fruit Farmer

Should Have One. The plan of a farm tool house, as submitted herewith, is planned for 14 or 15 farm or yard. Sometimes 14 or even well. In many places such a building can be built on a side hill, and a second story added, the rear opening level with the ground. It may also be built on



PLAN FOR A TOOL HOUSE.

the length is nearly twice the width, 14 by 30 feet. Stalls for mowers, rakes, hoes, etc., are shown at a and b, each being about 7 by 10 feet. In another corner is a harness and oiling room c. 4 by 71/2 feet. The work bench, d, has shelves above and at side of one end is a tool chest e. If the building is two story, stairs may be placed at f, or shelves and racks for tools and seeds. Room for a fanning mill is in the center, as at g. Partition between the stall, i may be used as shelves as needed and iii i are corner cupboards or drawers. Storage for plows, cultivators and other tools is shown at h h. A second story would be handy as a lumber room, seed room, granary, wool room, etc. Four windows are shown .- H. E. Partridge, in Farm and Home.

Origin of Potato Bugs. The Colorado potato beetle receives its common name from the fact that its native home was at the eastern base of the Rocky mountains, where it fed upon a species of wild potatoes quite common to this region, known as the Sandbur (Solanum rostratum). It was collected there and described by Thomas Say in 1824. It was first mentioned as an injurious insect in 1859 when some of the early settlers of western Nebraska reported it feeding in large numbers upon the Irish potato. We thus see that the species changed its food from a wild to a cultivated plant, as has been the case with many of our injurious insects.-Farmers' Review.

Money in Medicinal Plants.

Many medicinal plants can be grown with profit, as the demand for some the purity of the cream and the fine kinds is increasing. Absinthe (worm- flavor of the butter will be impaired by wood) can be raised as far north as exposure to it. New England, and this country imsells for eight dollars per pound, may be grown in nearly all sections. Pep- churned the better. permint and spearmint find ready sale, farmer, is imported. frequently selling creasing the product of the cows as at \$150 per ton. Then there are hoar- breeding or blood. hound, boneset, mandrake, blood root, weeds in some localities, all of which in tepid water and then scalding thorare largely used and have a value in oughly with boiling water,-Agriculmarket.

ECONOMY IN HAULING.

Loads and Roads in Europe and in

the United States. An American farmer visiting France and Germany will certainly be interested, and perhaps somewhat amazed, Mr. Tegetmeier, the famous English to see the average country highways as authority on poultry, in commenting on | there existing-broad, smooth roada report of the Rhode Island experiment | ways, splendidly surfaced with stone, station regarding the value of fowls to suitable for heavy traffic in all kinds of orchards, says: For many years I have weather, and generally lined on both advocated the introduction of poultry sides with tall, stately trees, shading into apple orchards, maintaining that the highway like a park driveway. He light were made to pass between the they do good service, in two very dis- would wonder at the money which had tinct modes-first, by manuring the been spent upon them. With a solid ground, and, secondly, by the destruc- stone roadway, on which an ordinary be observed. The black cross lines, tion of insects and grubs that hiber- wagon tire would make no impression, characteristic of the spectrum of the The apple maggot appears to be ex- and four tons of produce should be be about twice as wide as they usually tending in America, attacking the favor- loaded upon an ordinary farm wagon, ite Baldwin, which is so well known which is there built with tires four or of the magnet ceased, the lines would set visitors at ease when they are preas being imported largely into this six inches wide. A French load of hay, country, and rendering it entirely un- approaching our American farmer fit for use, but the spraying the trees from a distance, would bring to his with Bordeaux mixture and Paris green | mind a vision as of a moving hay stack -such a great difference is there between the ordinary load of hay as there



ROAD NEAR NILES, MICH. (Travel Over Such a Road Is Anything But Pleasant.)

hauled to market and the load he i accustomed to see among his American

Contrast such a system of roads with those of our country, with which all of us dwelling in a rural community are so familiar. The law lays out a highway 66 feet wide, but it is rare that more than 20 feet of this ground are appropriated for highway purposes proper. The "highway," such as it is, is rough and uneven, and the ordinary wagon passing over it travels through an inch or two inches of dust in dry weather and through three or four inches of bog, very frequently, after a rain of no unusual severity. This is the road on the level. Where a hill exists conditions are even worse, for the action of rain and snow washes away the soil at the top of the hill, leaving the surface covered with the roughest of gravel, and transforming the "road" at the foot of the hill into what, after a shower, is a veritable quagmire.

What wonder, then, that the average wagon load as we see it in the United States is so entirely different a thing from that seen abroad! Travel over a road of this kind is necessarily slow phenomenon .- N. Y. Tribune. by 30 feet, but the proportions can be with any kind of a load and as the dismade to suit the convenience of any tance from the farm to the market is greater by far than in France and Ger- Harder Than Diamonds and Will Rev 16 foot timber can be secured easier many, the farmer reduces the weight of than 15 foot and such will do equally as his load, that his team may make some

> The movement for good roads is conthinking farmer who has become familiar with the publications of the dehave brought their system of water olutionize many industries where transportation to a high state of perfection and we are the possessors of a system of railroads which is unequaled by that of any other nation in the world. It now looks as if the American people were seriously turning their attention to the common country road, and it is safe to assume that, once the movement for better highways is led along definite lines, we shall, before many years, have a system of country roads equal in every way to our water and railway transportation facilities.-Cleveland Cycling

HINTS FOR DAIRYMEN.

Taste decides the merit of butter. Color is subservient to taste in butter. Quality is of more importance than

Bad water will make impure, un-

wholesome milk. saving of labor.

handled familiarly from the first and an ounce, but they have no titaniun there will be no trouble.

good butter unless his cows are fed lib- extremely difficult to separate from the erally with wholesome food.

products are always in the line of food- is no doubt that plenty of it could be and hence always in demand. Proper management of the dairy gives large demand should spring u

of farming. If the air is warmer than the cream, al Collector.

After cream becomes sour the more ports it from Europe. Saffron, which ripening given it the more it depreciates, and the sooner it is skimmed and

Feeding and general care and manand sage, which is well known to every agement have as much to do with in-

The milk cans, pails and other vessels pennyroyal, etc., which are regarded as should be kept clean by first washing | Mother Hubbard wrapper the only tural Epitomist.

MAGNETISM AND LIGHT.

A New Relation Between Them Dis-

covered by Spectroscopy. A curious, though at present unimportant, discovery in regard to the relation between magnetism and light is just now puzzling many scientists. A foreign investigator named Zeeman announced a few months ago that if one were engaged in examining the vapor of certain metals (sodium, for instance) with a spectroscope, and if the beam of jects, and rendered her the most useful poles of a strong magnet before entering the instrument, a novel effect would | them: it is not to be wondered at that three metal in question, would be found to are; whereas, as soon as the influence is kindness of heart that enables her to shrink to their natural breadth. Since that time other experimenters have reported that the magnet seemed to "reverse" a line; that is to say, change it to a bright line if dark originally, or into a dark one if it was bright at first.

Prof. Albert A. Michelson, of the University of Chicago, has just made public some observations which prob- others, and says the right thing in the ably describe the phenomenon more accurately than do the earlier reports. and some other metals the line is not widened, but is doubled, the two members of the pair being separated for a distance which varies in proportion to the strength of the magnet. Sometimes this interval is thrice as broad as one of the lines, but if the magnetic field is weak, the lines will be closer tocomes where the single line was before; so that one of the new images is displaced a little to the right, and the other a little to the left. The number of substances examined thus far is small. It includes sodium, cadmium and mercury. This is hardly enough to justify the statement that the duplication, as a result of magnetic influence on a beam of light before spectroscopic analysis occurs with all the known elements; but it suggests the probability that such is the case.

The only other known influence of worries of royalty. magnetism upon light is observed when a ray that has been "polarized" by going through a certain kind of crystal falls upon another crystal. The second, in one position, will let the polarized ray pass through; but if it be slowly twisted around, just one-quarter of a rotation, the light cannot penetrate. Now, Faraday discovered, nearly a century ago, that if the "polarized" beam passed between the north and south poles of a magnet, the second crystal would act peculiarly. It would extinguish the light when in the right position to transmit an unmagnetized beam, and would transmit when in the right position to extinguish the same. The key to this mystery is still missing. A kindred problem is afforded by the researches of Zeeman and Michelson. They both suggest, what Clerk Maxwell has tried to prove in other ways, that light is itself an electro-magnetic

NEW METALLIC COMPOUND.

olutionize Many Industries. Within a few days the patent office respectable progress without being will grant title in a discovery which worn out during the first few miles of may fairly be considered as being the the trip. Reducing his loads, the farm- most remarkable since the X ray. It er's trips are multiplied in number, and is for a substance that is harder than posts, but should have sills at the ends | the result of it is that it requires three | the diamond, and the inventor is to keep from spreading. In this plan or four times as long to market his crop Moissan, the French savant, whose exas would be consumed on European periments in the line of diamond making by artifice have obtained such wide publicity. The utmost secreey has tinually and rapidly growing. Every been maintained in regard to the matter, but investigation reveals the fact that the substance in question is a partment of agriculture becomes at carbide of titanium-that is to say, a once an advocate of better highways compound of carbon with the metal and an advocate of better methods in titanium. There can be no doubt that building them. The American people its production in quantities will rev-

> Titanium is one of the most interesting of the rare metals. It is about half as heavy as iron, and, like the latter, it is white when perfectly pure. Chemiphysical properties it is like iron. The familiar mineral "rutile" is an oxide of titanium, and is used to give the proper color to artificial teeth. A small quantity of the mineral put into the mixture for tooth enamel produces the peculiar yellowish tint that counterfeits nature

abrasives are employed, and it may

even be used for the cutting of dia-

so admirably. Titanium has no other commercial use than this. There is none of it on the market in the metallic state, an probably not an ounce could be ob tained at any price by advertising fo it. Dealers in rare metals will quote you gallium at \$3,000 an ounce, ger The chief advantage of the creamery | manium at \$1,125 an ounce, rhodium system is cheapness of product from the at \$112 an ounce, ruthenium at \$90 an ounce, iridium at \$37 an ounce, osmiun Dairy heifers should always be at \$26 an ounce, and palladium at \$2 to sell, because there is no demand for No dairyman can make uniformly it, and also for the reason that it i substances with which it is found com Dairying has one advantage in that its | bined in nature. At the same time there produced at a very moderate cost if the farmer a continuous income, some- Though classed as a rare metal, it i thing he does not have with most lines not really such, inasmuch as it is common impurity in iron ores .- Miner

A Thin Excuse.

Deacon Hasbeen (laying down hi paper)-I have just been reading tha alcohol will remove grass stains from the most delicate fabric.

Mrs. Hasbeen (severely)-There yo go again, Jason, trying to find som excuse for tippling! Just remembe that you have no grass stains in you stomach.-Puck.

-For making a common, ordinar dressmaker in the Klondike region charged five dollars, and in 30 working hours she netted \$90 from her sewing.

THE WOMANLY QUEEN.

Sterling Qualities of Great Britain's

Monarch. When the world has united in honor. ing the womanly queen whose reign is without a parallel in English history, it is worth while to set down in order some of the personal qualities which which have not been specially noted, but which have endeared her to her subsovereign of the century. A correspondent in England thus describes

Ons of the marked traits of the queen is tact. "Gracious" is the word which is most frequently used in England when her name is mentioned. It sented to her, and to convince the multitudes, who witnessed her triumphal progress through the streets of London, that her nature has not been hardened, but softened and sweetened by 60 years of exalted power.

Her manners are simple and sincere. She is thoughtful of the feelings of right way. She shows by her demeanor on public occasions that she honors her He finds that with cadmium, sodium subjects and desires to promote their welfare and happiness.

Another quality is a business-like talent for reigning. She has work to do, and she performs it in an orderly, methodical way. Her life at court is conducted by the clock. Everybody in aftendance upon her is required to be punctual to the minute, and every gether. The blank space between them | day's arrangements are carefully ordered so that she will have time for every detail of public business and courtly ceremonial. She never allows herself to be hurried in examining and signing public papers.

She is thorough and precise in everything which she does. A portion of each day is taken up with the business of state. What remains is divided so that she has time for an afternoon drive, social life at court, the direction of the royal household and adequate rest. She knows nothing of the secret

Another trait is sterling common sense. Throughout her reign she has adapted herself to the conditions of constitutional rule, under which the continuance of monarchy has been possible in a revolutionary age.

She has respected the will of the people in every election; she has taken no interest in party politics; she has followed the advice of the ministers of the day; and she has shown sound judgment in making the crown the instrument of popular government. prime minister after another has found her to be a capable, experienced ruler, well informed in home and foreign affairs, and with clear ideas of her own relations to the state.

Her greatest virtue as a sovereign has been her womanliness. As wife, mother, widow and first lady of the realm, she has never unsexed herself, but has remained an example of womanly graces of character.

Short in stature and without beauty of feature or grace of carriage to impress either a well-ordered court or the throngs of sightseers crowding the streets through which she passed on jubilee days, she commands respect by her purity of life, her devotion to her husband's memory and her children's welfare, and her genuine womanly qualities.

Elizabeth, with her inflexible will and hard, masculine order of mind, was a kingly queen in an iron age of conquest. Victoria has been a womanly queen in a home-loving empire, reigning in a golden era of progress .-Youth's Companion.

How It Happened.

Tourist (in Oklahoma hotel)-That nild-mannered, meek-looking little man who sat opposite me at dinner tooked very peculiar with his fierce pompadour. I wonder how he hapoened to adopt that style of wearing his

Landlord-Oh, that's Rev. Mr. Harps. He has been wearin' his hair that way ever since he was in a stageload of cally it resembles tin, while in its passengers who were held up by a cross-eyed road agent who was so nervous that the hook of his finger on the trigger of his gun kept openin' an' thuttin' lile a bird's claw .- N. Y. World.

THE MARKETS.

CINCINNATI. Sept. 2

d	Mixed packers	4	30	@	4	40	1
)-	Light shippers	4	40	0			1
	SHEEP-Choice	2	70	0			1
)T	LAMBS-Good to choice	9	40	@			1
e	LAMBS—Good to choice FLOUR—Winter family GRAIN—Wheat—No. 2 red	ú	10	00	4	9534	П
-	GRAIN-Wheat-No. 2 red			60		93	1
r-	No. 3 red Corn—No. 2 mixed			0		31	1
m	Oats-No. 2			6		2014	1
n	Rye-No. 2			0		50	1
	Rye-No. 2					ALC:	1
m	PROVISIONS-Mess pork	d		@1	0	00	1
24	PROVISIONS—Mess pork Lard—Prime steam BUTTER—Choice dairy		-	@	4	75	1
n	BUTTER-Choice dairy		10	@		11	1
						W17.	1
r	APPLES—Per bbl	1	25	@			1
is	POTATOES-Per bbl	1	90	0	N	00	1
	NEW YORK.					102	1
е	FLOUR-Winter patent	5	55	@	5	65	1
1-	No 2 red	1	02%	0	1	02%	1
.0	CODN No Dwined			600		3577.000	1
	RYE			(c)		411/4	1
e	OATS-Mixed		231/	0		24	1
a	PORK-New Mess	10	00	(0)	0	20	П
	RYEOATS—MixedPORK—New MessLARD—Western			W.	Ð	90	1
р.	CHICAGO.						L
1.9	FLOUR-Winter patents GRAIN-Wheat-No. 2 red	5	00	@	5	30	1
a	GRAIN-Wheat-No. 2 red		935				
r.	No.2 Chicago spring		93%	0		96	13
	CORN-No. 2		19%	600		3134	1
	OATS-No. 2	0	19%	TO TO	0	191/2	1
P	PORK-Mess	9	90 874	60	0	90	1
	Professional Control of the Control	*	0179	100	138	20	1
is	BALTIMORE.					Tana Tana	1
	GRAIN—Wheat—No. 2		50				13
ıt	GRAIN-Wheat-No. 2					98%	П
m	Southern-Wheat		95	00		98	R
	Corn—Mixed		351			35%	
	Oats-No. 2 white			000		24 50%	L
u	CATTLE—First quality	á	20			45	1
10	HOGS-Western	4	65	(a)	4	75	
er	NECESSARY OF THE PROPERTY OF T	-		-	1		13
0.0	INDIANAPOLIS.			-			L
ır	GRAIN-Wheat-No. 2			@		91	Ш
	Corn—No. 2 mixed Oats—No. 2 mixed			0		3014	52855
				0		171/2	1
Ţ	LOUISVILLE.						1
	FLOUR-Winter patent	3	75 .	0	4	00	1
y	GRAIN-Wheat-No. 2 red			(C)		2572	1
n	Corn-Mixed			(co.		3116	1

Corn-Mixed..... Oats-Mixed.....

PORK-Mess.....

Encouraging Statistics.

The Baltimore and Ohio officials are very much pleased with certain statistics that have recently been prepared of the performance of freight trains on the Second division, which handles all the east and west-bound traffic between Baltimore and Cumberalnd. Before the new freight engines were purchased, and the improvements made in the track in the way of straightening curves and reducing grades, the average number of cars to the train was 28 1-2. Now, with more powerful and modern motive power and a better track, the average is 40 cars per train, an increase of 41 per cent. The average east-bound movement per day for the first ten days of August was 1,123 loaded cars. On the Third division, Cumberland to Grafton, where there are grades of 125 feet to the mile, the engines used to haul 19 1-2 loads to the train. Now the average is 25 2-3 loads per train, an increase of 31 per cent. It would certainly appear that the money spent in improvements on the B. and O. is being amply justified, and that the cost of operation is being very materially reduced.

The Country's Needs .- "What this country needs," said the earnest citizen, "is more warships." "Yes," replied Senator Sorghum, reflectively, "and more consulships."— Washington Star.

Do We Need Big Muscles?

By no means. Persons of herculean build frequently possess a minimum of genuine vigor, and exhibit less endurance than very small people. Real vigor means the ability to digest and sleep well, and to perform a reasonable amount of daily physical and mental labor without unnatural fatigue. It s because a course of Hostetter's Stomach Bitters enables the enfeebled dyspeptic to resume the allotted activity of every day life, as well as to participate without discomfort in its enjoyments, that it is such a pre eminently useful medicine.

If a man makes a success in life, he likes to tell how he started with nothing.-Washington Democrat.

CHEAP EXCURSION RATES WEST

Vla Burlinglington Route. One fare plus \$2.00 for the round trip to Nebraska, Kansas, St. Paul, Minneapolis, Black Hills, certain portions of Iowa, Colorado and Utah. September 7th, 21st. October 5th and 19th. Ask your ticket agent for additional information. L. W. WARELEY, General Passenger Agent, St. Louis, Mo.

When a woman has more than she can hold in her hand she puts it in her mouth. -Washington Democrat.

For Whooping Cough, Piso's Cure is a successful remedy.—M. P. Dieter, 67 Throop Ave., Brooklyn, N. Y., Nov. 14, '94.

If it were not for funerals a great many men would never hear a sermon.-Washington Democrat.

Hall's Catarrh Cure Is taken internally. Price 75c.

Some people are better when they are sick than at any other time.-Chicago Record.

KIDNEY TROUBLES

Cured by Lydia E. Pinkham's Vegetable Compound,

Also Backache

I cannot speak too highly of Mrs. Pinkham's Medicine, for it has done so much for me. I have been a great sufferer from Kidney trouble, pains in muscles, joints, back and shoulders; feet would swell. I also had womb troubles and leucorrhœa. After using Lydia E. Pinkham's Vegetable Compound, and Blood Purifier and Liver Pills, I felt like a new woman. My kidneys are now in perfect condition, and all my other troubles are cured .-MRS. MAGGIE POTTS, 324 Kauffman St., Philadelphia, Pa.

Backache.

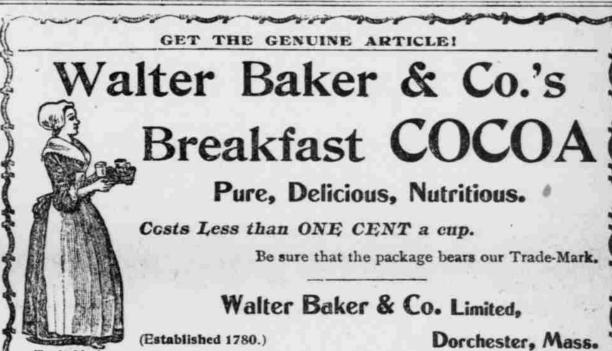
My system was entirely run down, and I suffered with terrible backache in the small of my back and could hardly stand upright. I was more tired in the morning than on retiring at night. I had no appetite. Since taking Lydia E. Pinkham's Vegetable Compound, I have gained fifteen pounds, and I look better than I ever looked before. I shall recommend it to all my friends, as it certainly is a wonderful medicine.-Mrs. E. F. Morton, 1043 Hopkins St., Cincinnati, Ohio.

Kidney Trouble.

Before taking Lydia E. Pinkham's Vegetable Compound, I had suffered many years with kidney trouble. The pains in my back and shoulders were terrible. My menstruation became irregular, and I was troubled with leacorrhœa. I was growing very weak. I had been to many physicians but received no benefit. I began the use of Mrs. Pinkham's medicine, and the first bottle relieved the pain in my back and regulated the menses. It is the best kind of medicine that I have ever taken, for it relieved the pain so quickly and cured the disease. - MRS. LILLIAN CRIPPEN, Box 77, St. Andrews Bay, Fla.

DOES YOUR ROOF LEAK?

If an old, leaking tin, iron or steel roof, paint with Al-len's Anti-Rust Paint. One coat enough; costs little; goes far; lasts long. No skill required. Stops Leaks and Prolongs the Life of an old Roof. Write for evidence. Agents Wanted. T. F. Allen 413 Vine st., Cincinnati, O.



L AGES Hail with delight the coming of the most wonderful, meritorious preparation that will lighten the ills of humanity and will do away with the taking of obnoxious, violent purges, inconvenient liquids, and pills that

tear your life out. Simple, because in CANDY CATHARTIC

You find just what you want, convenient in form, pleasant of taste (just like candy), and of never-failing remedial action. Although made of the most costly ingredients, they are sold at a price within the reach of all From Baby to Dear Old Grandpa. ALL DRUGGISTS.

> "GOOD WIVES GROW FAIR IN THE LIGHT OF THEIR WORKS," ESPECIALLY IF THEY USE

What organ shall I buy? TWACHESTER Why not buy the one which holds the world's record for largest sales -

GENERAL HORACE PORTER'S NEW BOOK, CAMPAICNING * WITH CRANT A SUPPLEMENT to GEN. GRANT'S MEMOIRS. Splendidly illustrated. A first-class book, EASY TO SELL. Exclusive territory. Liberal discounts. Address THE CENTURY CO., 33 East 17th Street, New York.

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at home without pain. Book of particulars sent FREE. B. M. WOOLLEY, M.D., Atlanta, Ga. PISO'S CURE FOR N



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